

A new species of *Arrhenophagoidea* Girault, 1915 (Hymenoptera: Encyrtidae) from South Africa

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A new encyrtid from South Africa, *Arrhenophagoidea neseri*, is described. A key is given to the males and females of the species of *Arrhenophagoidea* Girault.

The genus *Arrhenophagoidea* was erected for the type-species *A. coloripes* Girault, 1915 which was described from a single female collected in Queensland, Australia. The type-species was redescribed by the same author (1932) in an unpublished manuscript which also included a description of the male.

Annecke & Prinsloo (1974) revised the genus and included, apart from the type species, three new forms, all from South Africa. They are: *rolaspidis* Annecke & Prinsloo; *chaetacmae* Annecke & Prinsloo; and *sierra* Annecke & Prinsloo. Shortly after their revision was completed, a fourth new species, also from South Africa, was reared from a diaspidine scale insect, probably of the genus *Asymmetraspis* MacGillivray, on *Aspalathus hispida*, collected in the Cape. This new species is described below.

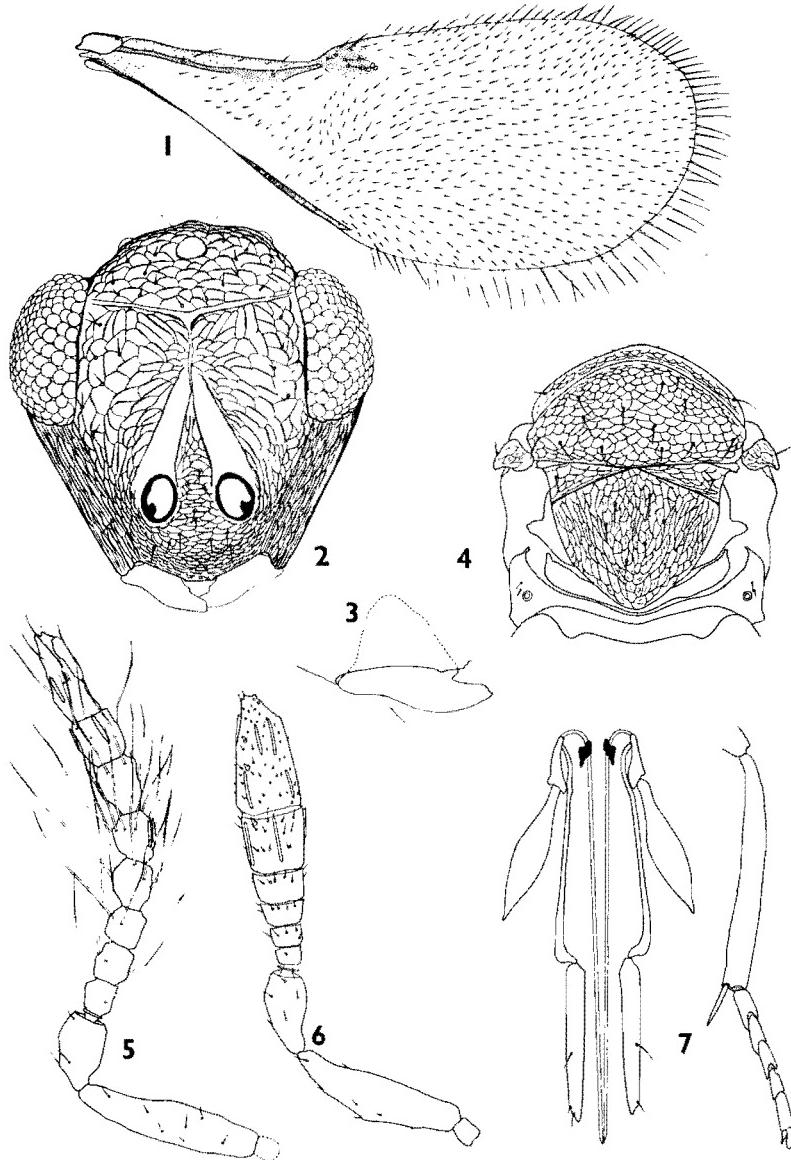
The five known species of the genus show a remarkably close similarity in colour and in most structural characters, but differ clearly from each other in one or more of the following characters, as also noted in the key given below: shape of the mandibles; number of segments of the maxillary palpi; and number of antennal segments in both sexes. The two-segmented club of the male of *sierra* was thought to be an atypical character of the genus (Annecke & Prinsloo, 1974), but this character is also present in the male of the new species here described.

***Arrhenophagoidea neseri* spec. nov., figs 1-7**

This new species fits the description of the genus, as given by Annecke & Prinsloo (1974), well. To avoid unnecessary repetition, some characters of this species typical of the genus, have been omitted from the description given below.

FEMALE: Length about 0,75 mm. Head and body, save tegulae of thorax which are sordid white, dark blackish-brown; antenna sordid white; legs with all coxae brown to blackish-brown, the trochanters sordid white; for femur predominantly dusky, the tibia and tarsus sordid white; middle and hind legs with femora and tibia predominantly dusky, fading at the basal and distal end of each segment, the tarsi sordid white; dark pigmentation of hind leg paler than that of middle leg; fore wing hyaline except for the immediate base which is slightly infuscated; hind wing entirely hyaline.

Head (fig. 2) a little more than 1,5 times as wide as frontovertex at median ocellus; ocelli large, in a strongly obtuse-angled triangle; antennal sockets less than their



Figs 1-7. *Arrhenophagoidea neseri* spec. nov. 1. Right fore wing (♀-paratype T 4853-1). 2. Head, anterior (♀-paratype T 4853-3). 3. Right mandible (♀-paratype T 4853-1). 4. Thorax, dorsal aspect (♂-holotype T 4853-5). 5. Antenna, outer aspect (♂-paratype T 4853-2). 6. Antenna, outer aspect (♀-holotype). 7. Ovipositor and middle tibia and tarsus, drawn to the same scale (♀-holotype).

own length apart at their smallest interval, about twice their own length from the eyes; scrobes inverted V-shaped, as in the other species of the genus, but appearing deeper, their lateral margins sharply angled, sulcate; membranous interruptions on frontovertex and face similar to that of the other species; mandible (fig. 3) with one minute tooth and a truncation; maxillary palpi with two, labial palpi with one segment. Antenna (fig. 6) with funicle four-segmented, the club two-segmented; scape expanded ventrally in the basal two-thirds or so, four times as long as its greatest width; pedicel large, wider than and about one-half as long as scape, a trifle shorter than all the funicle segments together; funicle with all segments transverse, increasing in length and width towards the club, VI about twice as wide and long as I; distal funicle segment a little narrower than basal club segment; club large, slightly more than twice as long as all the funicle segments together, obliquely truncate from near apex, as in other *Arrhenophagoidea* species; only club segments with rhinaria, distributed as in fig. 6; antenna rather sparsely setose, the setae fine and short. Sculpture and setation of frontovertex and face as in fig. 2, characteristic of the genus.

Thorax (fig. 4) structurally similar to that of the other species of the genus, the aciculations on the scutellar cells rather weak, as in *sierra*; scutellum with six setae. Middle leg with tibial spur about as long as basal tarsal segment.

Fore wing (fig. 1) characteristic of the genus but narrower than in the other species, about 2,5 times as long as broad, the venation and setation as in fig. 1.

Abdomen with gaster plainly longer than thorax in cleared slide-mounted specimens, somewhat elongate, obtusely pointed at the apex; ovipositor (fig. 7) long, reaching beyond the middle of gaster as seen through the derm in cleared slide-mounts, a little more than 2,5 times as long as gonostyli, the latter long and slender, acutely pointed at the apices, more than three times as long as middle tibial spur; ovipositor plainly longer than middle tibia; ovipositor and gonostyli protruding strongly caudally in cleared slide-mounted and dried specimens, the gonostyli by more or less than one-half their own length.

MALE: Differing principally from the female in the following characters: fore leg with coxa blackish-brown, trochanter and remainder of leg sordid white, the femur with slightly darker suffusions; middle and hind legs with coxae and trochanters predominantly brown to blackish-brown, the femora a little paler, the tibia pale with dusky suffusions, the tarsi sordid white. Antenna (fig. 5) with funicle six-segmented, the club with two segments, similar to that of *sierra*; scape about 2,5 times as long as pedicel, the latter about as long as the basal two funicle segments together; funicle segments I-III subquadrate, IV-VI each longer than wide; club about as long as the preceding three funicle segments together, the basal club segment about as wide as the distal funicle segment, bluntly pointed at the apex; antenna sparsely setose, the setae of funicle and club long, slightly curved, those of funicle as long as or plainly longer than the basal three funicle segments together; funicle segments V-VI and both club segments each with a few long slender rhinaria.

MATERIAL EXAMINED. 10♀ and 2♂ (T 4853, ♀-holotype and 11 paratypes) with the following collection data: SOUTH AFRICA: Paarl, C.P., iv.1973, S. Neser and D. P. Annecke, ex ? *Asymmetraspis* sp. on *Aspalathus hispida*.

This species is named after Dr S. Neser, Winter Rainfall Region, Department of Agricultural Technical Services, Stellenbosch, C.P., who collected the material.

Key to the species of *Arrhenophagoidea* Girault

Males and females

- 1 Maxillary palpi with three segments; scutellum with eight setae; male antennal club with one segment 2
— Maxillary palpi with two segments; scutellum with six setae; male antenna with club one or two-segmented 3
- 2 Female antenna with funicle three-segmented, club not divided; male with fore and hind legs (except coxae) uniformly pale **coloripes**
— Female antenna with funicle six-segmented, club two-segmented with a second septum which is incomplete or entire but indistinct; fore and hind legs of male with dark suffusions on femora and tibia **rolaspidis**
- 3 Female antenna with funicle three-segmented; mandible with one tooth, acute at apex; antennal club of male with one segment **chaetacmae**
— Female antenna with funicle four or five-segmented; mandible otherwise; antennal club of male with two segments 4
- 4 Female antenna with funicle five-segmented; mandible with two small blunt teeth **sierra**
— Female antenna with funicle four-segmented; mandible with one small blunt tooth and a truncation **neseri**

REFERENCES

- ANNECKE, D. P. & PRINSLOO, G. L. 1974. On some new and described species of arrhenophagine Encyrtidae (Hymenoptera). *J. ent. Soc. Sth. Afr.* **37** (1): 35-47.
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Manuscript received 27 May 1974